

CLAIMS

1. A gas generating composition comprising ammonium nitrate as an oxidizing agent, microcrystalline carbon powder as a reducing agent and a stabilizer, wherein the amounts of the ammonium nitrate, the microcrystalline carbon, and the stabilizer are from 89 to 99wt%, from 1 to 6wt%, and from 0.2 to 6wt%, respectively, with respect to the total amount of the ammonium nitrate, the microcrystalline carbon and the stabilizer.

2. The gas generating composition as recited in claim 1, wherein the amount of the microcrystalline carbon is from 1.5 to 6wt% with respect to the amount of the ammonium nitrate, and the amount of the stabilizer is from 10 to 200wt% with respect to the amount of the microcrystalline carbon.

3. The gas generating composition as recited in claim 1 or 2, wherein the ammonium nitrate has an average particle size of 1 to 1000 μ m, and the microcrystalline carbon has an average particle size of 1 to 500 μ m and has a specific surface of 5 to 1600m²/g, and the stabilizer has an average particle size of 0.1 to 500 μ m.

4. The gas generating composition as recited in any one of claims 1 to 3, wherein the ammonium nitrate is phase-stabilized ammonium nitrate.

5. The gas generating composition as recited in any one of claims 1 to 4, wherein the gas generating composition further comprises a high energy substance.

6. The gas generating composition as recited in any one of claims 1 to 5, wherein the gas generating composition further comprises a binder and a plasticizer.

7. The gas generating composition as recited in any one of claims 1 to 6, wherein the gas generating composition is formed into a cylindrical body that has an outer diameter of 5 to 40mm and a length of 5 to 40mm and has 7 or 19 substantially equally spaced bores with an inner diameter of 1 to 10mm extending longitudinally therethrough, and the thickness from a surface of the cylindrical body to the bore is 3mm or less.

8. A molded product of a gas generating agent, wherein the gas generating composition as recited in any one of claims 1 to 6 is molded into a cylindrical body that has an outer diameter of 3 to 10mm and a length of 2 to 10mm and has a bore with an inner diameter of 1 to 8mm extending longitudinally at the center thereof, and the thickness from a surface of the cylindrical body to the bore is 3mm or less.

9. A molded product of a gas generating agent, wherein the gas generating composition as recited in any one of claims 1 to 6 is molded into a cylindrical body that has an outer diameter of 0.5 to 5mm and a length of 0.5 to 5mm and has a bore with an inner diameter of 0.1 to 4mm extending longitudinally at the center thereof, and the thickness from a surface of the cylindrical body to the bore is 1mm or less.

10. A method for manufacturing a molded product of a gas generating agent, the method comprising the steps of:

adding an organic solvent to the gas generating composition as recited in any one of claims 1 to 6 to make it into a block; and

extruding the block into a desired shape by an extruder.

11. The gas generating composition as recited in any one of claims 1 to 3, wherein the stabilizer is at least one selected

from the group consisting of diphenylamine, resorcinol, and diethyldiphenyl urea.